should review on an ongoing basis the problem of noise on board ships with the objective of improving the protection of seafarers, in so far as practicable, from the adverse effects of exposure to noise.

2. The review referred to in paragraph 1 of this Guideline should take account of the adverse effects of exposure to excessive noise on the hearing, health and comfort of seafarers and the measures to be prescribed or recommended to reduce shipboard noise to protect seafarers. The measures to be considered should include the following:

(a) instruction of seafarers in the dangers to hearing and health of prolonged exposure to high noise levels and in the proper use of noise protection devices and equipment;
(b) provision of approved hearing protection equipment to seafarers where necessary; and
(c) assessment of risk and reduction of exposure levels to noise in all accommodation and recreational and catering facilities, as well as engine rooms and other machinery spaces.

Guideline B4.3.3 – Exposure to vibration

1. The competent authority, in conjunction with the competent international bodies and with representatives of shipowners' and seafarers' organizations concerned, and taking into account, as appropriate, relevant international standards, should review on an ongoing basis the problem of vibration on board ships with the objective of improving the protection of seafarers, in so far as practicable, from the adverse effects of vibration.

2. The review referred to in paragraph 1 of this Guideline should cover the effect of exposure to excessive vibration on the health and comfort of seafarers and the measures to be prescribed or recommended to reduce shipboard vibration to protect seafarers. The measures to be considered should include the following:

(a) instruction of seafarers in the dangers to their health of prolonged exposure to vibration;
(b) provision of approved personal protective equipment to seafarers where necessary; and
(c) assessment of risks and reduction of exposure to vibration in all accommodation and recreational and catering facilities by adopting measures in accordance with the guidance provided by the ILO code of practice entitled *Ambient factors in the workplace*, 2001, and any subsequent revisions, taking account of the difference between exposure in those areas and in the workplace.

Guideline B4.3.4 – Obligations of shipowners

1. Any obligation on the shipowner to provide protective equipment or other accident prevention safeguards should, in general, be accompanied by provisions requiring their use by seafarers and by a requirement for seafarers to comply with the relevant accident prevention and health protection measures.

2. Account should also be taken of Articles 7 and 11 of the Guarding of Machinery Convention, 1963 (No. 119), and the corresponding provisions of the Guarding of Machinery Recommendation, 1963 (No. 118), under which the obligation to ensure compliance with the requirement that machinery in use is properly guarded, and its use without appropriate guards prevented, rests on the employer, while there is an obligation on the worker not to use machinery without the guards being in position nor to make inoperative the guards provided.

Guideline B4.3.5 – Reporting and collection of statistics

1. All occupational accidents and occupational injuries and diseases should be reported so that they can be investigated and comprehensive statistics can be kept, analysed and published, taking account of protection of the personal data of the seafarers concerned. Reports should not be limited to fatalities or to accidents involving the ship.

2. The statistics referred to in paragraph 1 of this Guideline should record the numbers, nature, causes and effects of occupational accidents and occupational injuries and diseases, with a clear indication, as applicable, of the department on board a ship, the type of accident and whether at sea or in port.

3. Each Member should have due regard to any international system or model for recording accidents to seafarers which may have been established by the International Labour Organization.

Guideline B4.3.6 – Investigations

1. The competent authority should undertake investigations into the causes and circumstances of all occupational accidents and occupational injuries and diseases resulting in loss of life or serious personal injury, and such other cases as may be specified in national laws or regulations.

2. Consideration should be given to including the following as subjects of investigation:
(a) working environment, such as working surfaces, layout of machinery, means of access, lighting and methods of work;
(b) incidence in different age groups of occupational accidents and occupational injuries and diseases;
(c) special physiological or psychological problems created by the shipboard environment;
(d) problems arising from physical stress on board a ship, in particular as a consequence of increased workload;
(e) problems arising from and effects of technical developments and their influence on the composition of crews; and
(f) problems arising from any human failures.

Guideline B4.3.7 – National protection and prevention programmes

1. In order to provide a sound basis for measures to promote occupational safety and health protection and prevention of accidents, injuries and diseases which are due to particular hazards of maritime employment, research should be undertaken into general trends and into such hazards as are revealed by statistics.

2. The implementation of protection and prevention programmes for the promotion of occupational safety and health should be so organized that the competent authority, shipowners and seafarers or their representatives and other appropriate bodies may play an active role, including through such means as information sessions, on-board guidelines on maximum exposure levels to potentially harmful ambient workplace factors and other hazards or outcomes of a systematic risk evaluation process. In particular, national or local joint occupational safety and health protection and accident prevention committees or ad hoc working parties and on-board committees, on which shipowners' and seafarers' organizations concerned are represented, should be established.